

**REMARKS**

This is in response to the Restriction Requirements dated January 17, 2007 (Paper No. 20070105).

**I. Restriction Requirements**

The Examiner has required restriction between the following inventions in the above-identified application:

- I. Claims 1-7, drawn to a system, classified in class 707, subclass 12.
- II. Claims 8-13, drawn to method, classified in class 703, subclass 11.
- III. Claims 14-19, drawn to a product, classified in class 369, subclass 172.
- IV. Claims 20-25, drawn to system, classified in class 707, subclass 13.
- V. Claims 26-31, drawn to a method, classified in class 703, subclass 12.
- VI. Claims 32-36, drawn to a product, classified in class 369, subclass 172.

The Examiner has also required restriction between the following species:

- Ai. Stochastic computational model as in claims 5, 11, 17, 23, 29 or 35;
- Aii. Discrete computational model as in claims 6, 12, 24 or 30;
- Aiii. Continuous computational model as in claims 7, 13, 19, 25 or 31; and
- Aiv. Event-based computational model as in claims 18 or 36.

**II. Telephone Interview**

Applicants thank the Examiner for the courtesy of the telephone interview conducted on March 13, 2007. During the interview, the Examiner indicated that, if the claims of Group II and Group V are amended to be directed to a computer-implemented method, he will consider the claim amendments and withdraw the restriction requirements on Groups I, II and III and Groups IV, V and VI.

**III. Claim Amendments**

In the foregoing claim amendments, claims 8 and 26 have been amended to be directed to a computer-implemented method. Support for the amendment can be found in the figures, for example, Figures 2A and 2B and corresponding descriptions in the specification of the present application. No new matter has been added.

#### **IV. Election**

Applicants provisionally elect Group II (claims 8-13) for continued examination, with traverse. Applicants also provisionally elect the species of a stochastic computational model as in claim 5, 11, 17, 23, 29 or 35 for continued examination.

The Office Action recognizes that “Inventions of groups I and IV and groups II and V are related as process and apparatus for its practice.” (See office action, page 4). “Process and apparatus for its practice can be shown to be distinct inventions, if either or both of the following can be shown: (A) that the process *as claimed* can be practiced by another materially different apparatus or by hand; or (B) that the apparatus *as claimed* can be used to practice another materially different process.” MPEP §806.05(e). The Examiner alleges that “In this case the methods of groups II and V could be practiced by hand.” (See office action, page 4). Applicants have amended claims 8 and 26 to be directed to a computer-implemented method. The claims of Groups I and II and Groups IV and V are related as process and apparatus for its practice and are not deemed distinct because the process is practiced by a computing device. As such, Applicants respectfully submit that the claims of Groups I and II and the claims of Groups IV and V are related and not distinct, respectively. Applicants also submit that the claims in Groups II and III and Groups V and VI are related and not distinct, respectively. Applicants therefore request withdrawal of restriction requirement on Groups I, II and III and Groups IV, V and VI, respectively.

Furthermore, Applicants submit that the claimed subject matter of Groups I, II and III is not distinct over the subject matter of the Groups IV, V and VI. In the present application, the claims of Groups I, II and III relate to modeling and simulating of a biological system or process having a plurality of chemical reactions, while the claims of Groups II, III and IV relate to the modeling and simulation of chemical reactions. Applicants therefore submit that the claims of Groups I, II and III and Groups IV, V and VI are related to each other, and not distinct and independent. Furthermore, since the claims of Groups I, II and III and Groups IV, V and VI are related to each other, Applicants submit that a single search of pertinent prior art would appear to suffice for all aspects of the invention.

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**IV. Conclusion**

Accordingly, it is respectfully requested that the restriction requirement be withdrawn, and that all of the claims presently pending in this application be examined.

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Respectfully submitted,

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